

## ABSTRACT OF THE DISCLOSURE

An optical network with at least two nodes is provided comprising optical fiber, at least two active fiber-bays per node optically coupled to the fiber, and at least one redundant fiber-bay per node optically coupled to the fiber. When an active fiber-bay fails, the network changes  
5 from the failed fiber-bay to a redundant fiber-bay. Further, the number of redundant fiber-bays is less than the number of active fiber-bays.

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